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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/945,239	08/31/2001	Peiguang Zhou	KCC-16,163	1306

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Senniger, Powers, Leavitt & Roedel
One Metropolitan Square, 16th Floor
St. Louis, MO 63102

EXAMINER

BOYD, JENNIFER A

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 02/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/945,239

Applicant(s)

ZHOU ET AL.

Examiner

Jennifer A Boyd

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-107 is/are pending in the application.
- 4a) Of the above claim(s) 1-23,34-69 and 83-107 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-33 and 70-82 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION***Response to Amendment***

1. The Applicant's Amendments and Accompanying Remarks, filed November 13, 2003, have been entered and have been carefully considered. Claims 24 and 31 are amended and claims 24 – 33 and 70 – 82 are pending. In view of Applicant's Amendments, the Examiner withdraws the objection of claim 24 and the 35 U.S.C. 112 rejection of claim 31 as set forth in paragraphs 2 – 5 of the previous Office Action dated August 18, 2003. In view of Applicant's Remarks and, in particular, due to the fact that the hot melt adhesive of Wang is a copolymer with segments of isotactic structure that are interspersed by segments of atactic structure and not a blend, the Examiner withdraws all previously set forth rejections as detailed in paragraphs 6 – 11 of the previous Office Action dated August 18, 2003. Despite these advances, the invention as currently claimed is not found to be patentable for reasons herein below.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground

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provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 24 - 33 and 70 - 82 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1- 9, 14 - 15, 21 - 29, 35 - 37, 42 - 44, 48 - 56 and 62 - 67 of copending Application No. 09/944,635. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present invention broadly encompass the laminated structure of Application 09/944,635. Both applications claim an adhesive comprising an atactic polymer having a degree of crystallinity of less than about 20% and a number-average molecular weight between about 1,00 and 30,000 and an isotactic polymer having a degree of crystallinity of at least about 40% and a number-average molecular weight between about 3,000 and about 200,000 used to adhere two layers together.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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6. Claims 24 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Hall (US 3,370,106).

Hall is directed to a hot-melt adhesive composition (Title).

As to claim 24, Hall teaches a hot-melt adhesive blend comprising atactic polypropylene and a small portion of a different polymer selected from the group consisting of isotactic polypropylene and polyethylene (column 1, lines 46 - 50). The hot-melt adhesive composition is suitable to bond two materials together such as corrugated paper medium and a 50-pound kraft paper facer sheet (Abstract). The hot-melt adhesive composition preferably comprises a solid atactic polypropylene (essentially non-crystalline) having a molecular weight in the range of 15,000-60,000 (column 1, lines 57 - 69). It should be noted that essentially non-crystalline means having a degree of crystallinity around 0%. The isotactic (essentially crystalline) component has a molecular weight ranging from 85,000 to 95,000 (column 2, lines 19 - 25 and lines 39 - 45). It should be noted that essentially crystalline means having a degree of crystallinity around 100%.

As to claim 33, Hall teaches that the hot-melt adhesive is used to attach a paper medium and a paper facer sheet (Abstract). It should be noted that paper is typically made of cellulosic fibers or pulp.

Claim Rejections - 35 USC § 102/103

7. Claims 25 - 30 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hall (US 3,370,106).

As to claims 25 - 30, although Hall, Jr. does not explicitly teach the claimed static-peel-

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failure time of at least one hour as required by claim 25, static-peel-failure time of at least 8 hours as required by claim 26, static-peel-failure time of at least 24 hours as required by claim 27, relative accretion value of less than 1 as required by claim 28, relative accretion value of less than 0.5 as required by claim 29 and relative accretion value of less than 0.2 as required by claim 30, it is reasonable to presume that static-peel-failure time of at least one hour as required by claim 25, static-peel-failure time of at least 8 hours as required by claim 26, static-peel-failure time of at least 24 hours as required by claim 27, relative accretion value of less than 1 as required by claim 28, relative accretion value of less than 0.5 as required by claim 29 and relative accretion value of less than 0.2 as required by claim 30 is inherent to Hall, Jr. Support for said presumption is found in the use of like materials (i.e. a first layer attached to a second layer using an adhesive composition comprising hot-melt adhesive blend comprising atactic polypropylene with a molecular weight in the range of 15,000-60,000 and a small portion of a different polymer selected from the group consisting of isotactic polypropylene and polyethylene with a molecular weight in the range of 85,000 to 95,000) which would result in the claimed property. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed property of static-peel-failure time of at least one hour as required by claim 25, static-peel-failure time of at least 8 hours as required by claim 26, static-peel-failure time of at least 24 hours as required by claim 27, relative accretion value of less than 1 as required by claim 28, relative accretion value of less than 0.5 as required by claim 29 and relative accretion value of less than 0.2 as required by claim 30 would obviously have been present once the Hall product is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977) as to providing of this rejection made above under 35 USC 102.

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Claim Rejections - 35 USC § 103

8. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hall (US 3,370,106) in view of Linnemann (US 4,881,683).

Hall teaches the claimed invention above except fails to disclose that the first and second layers comprise a single material being folded over and adhesively bonded to itself.

Linnemann is directed to a paperboard container for shipping material in bulk (Title). Linnemann teaches that a paperboard slat may be formed by laminating multiple plies of paperboard and then folding the paperboard upon itself and gluing the edges together (column 3, lines 19 – 30). Linnemann notes that the fold gives the slat more strength using the same amount of paper or the same strength with less paper than merely laminating multiple plies (column 3, lines 35 – 39).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a single folded layer as suggested by Linnemann in the laminate of Hall motivated by the desire to increase the strength of the laminate.

Allowable Subject Matter

9. Claim 32 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Claims 70 – 82 are allowed.

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11. The following is a statement of reasons for the indication of allowable subject matter: the rejections of claims 32 and 33 as being anticipated by Tanzer (WO 01/15646), the rejection of claims 70 – 72 as being unpatentable over Tanzer (WO/15646) in view of Wang (US 6,329,468) and Hall (US 3,370,106) and the rejection of claims 70 and 73 – 82 as being unpatentable over Wang (US 6,329,468) in view of Hall (US 3,370,106) have been overcome by the present response. While Hall (US 3,370,106) is believed to be the most pertinent art, it fails to teach or suggest an adhesive composition comprising an atactic polymer having a degree of crystallinity of less than about 20% and a number-average molecular weight between about 1,000 and 300,000 and an isotactic polymer having a degree crystallinity of at least about 40% and a number-average molecular weight between about 3,000 and about 200,000 *to attach a first and second layer comprising a nonwoven material, woven material or an elasticized component*. It should be noted that Hall is directed to adhering a corrugated paper medium and a 50-pound kraft paper facer sheet and suggests that hot melt adhesives are used for bonding wood, paper, plastics, textiles and other materials. Hall makes a general reference to textiles but does not teach or suggest attaching a first and second layer comprising a nonwoven material, woven material or an elasticized component.

Response to Arguments

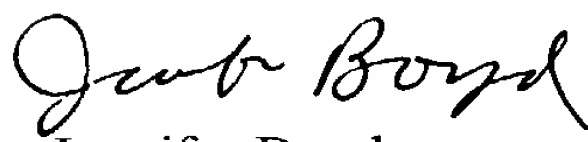
12. Applicant's arguments filed November 13, 2003 have been fully considered but they are not persuasive.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A Boyd whose telephone number is 571-272-1473. The examiner can normally be reached on Monday thru Friday (8:30am - 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-0994.


Jennifer Boyd
January 21, 2004


TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700